

WHAT IS CLAIMED IS:

1. An electro-optical device comprising, above a substrate:
  - a data line extending in a first direction;
  - a scanning line extending in a second direction and intersecting the data line;
  - a pixel electrode and thin film transistor disposed so as to correspond to an intersection region of the data line and the scanning line;
  - a storage capacitor electrically connected to the thin film transistor and the pixel electrode;
  - a shielding layer disposed between the data line and the pixel electrode;
  - an interlayer insulating film disposed as the base of the pixel electrode; and
  - a contact hole formed in the interlayer insulating film, to electrically connect the thin film transistor to the pixel electrode,
  - the entire region inside the contact holes being filled with a filler.
2. The electro-optical device according to Claim 1, the surface of the interlayer insulating film being planarized.
3. The electro-optical device according to Claim 1, another contact hole being formed in another interlayer insulating film, and
  - the entire region inside the other contact hole being filled with the filler.
4. The electro-optical device according to Claim 1, the filler being made of a light-shielding material.
5. The electro-optical device according to Claim 1, the filler being made of a transparent conductive material.
6. The electro-optical device according to Claim 1, a coating member being formed on the inner surface of the contact hole, and
  - the filler being formed on the coating member.
7. The electro-optical device according to Claim 6, the filler being made of a polyimide material.
8. The electro-optical device according to Claim 1, the contact hole being formed in light-shielding regions corresponding to a position in which the scanning line and the data line is formed.
9. The electro-optical device according to Claim 1, the data line being formed of the same film as one of a pair of electrodes constituting the storage capacitor.
10. The electro-optical device according to Claim 9, the data line being a laminated structure of an aluminum film and a conductive polysilicon film.

11. The electro-optical device according to Claim 1, further comprising a relay layer being electrically connected between one of the pair of electrodes constituting the storage capacitor and the pixel electrode.

12. The electro-optical device according to Claim 2, the plurality of pixel electrodes being disposed in a plane and including a first pixel electrode group inversely driven in a first period and a second pixel electrode group inversely driven in a second period complementary to the first period,

the data lines including main line portions which extend above the scanning lines so as to intersect the scanning lines and overhanging portions which overhang from the main line portions along the scanning lines,

a counter electrode facing the plurality of pixel electrodes being formed on a counter substrate disposed to face the substrate, and

convex portions being formed in regions which are to be gaps between the pixel electrodes adjacent to each other by interposing the scanning lines in plan view due to the presence of the overhanging portions on the base surfaces of the pixel electrodes on the substrate.

13. The electro-optical device according to Claim 2, the plurality of pixel electrodes being disposed in a plane and including a first pixel electrode group inversely driven in a first period and a second pixel electrode group inversely driven in a second period complementary to the first period,

a counter electrode facing the plurality of pixel electrodes and convex portions formed in regions which are to be gaps between the pixel electrodes adjacent to each other in plan view are formed on a counter substrate disposed to face the substrate, and

the convex portions have gentle surface step differences caused by removing the planarized films formed on the convex portions by an etching process and causing the surface of the convex portion exposed after removing the planarized films to recede.

14. The electro-optical device according to Claim 1, a dielectric film constituting the storage capacitor including a plurality of layers including different materials and also forming a laminated structure including a layer made of a material having a higher dielectric constant than the dielectric constants of the other layers.

15. An electro-optical device comprising, above a substrate:

a data line extending in a first direction;

a scanning line extending in a second direction and intersecting the data line;

a pixel electrode and a thin film transistor disposed so as to correspond to intersection regions of the data line and the scanning line;

a storage capacitor electrically connected to the thin film transistor and the pixel electrode;

a shielding layer disposed between the data line and the pixel electrode;

an interlayer insulating film disposed as the base of the pixel electrode; and

a contact hole formed in the interlayer insulating film, to electrically connect the thin film transistor to the pixel electrode,

the entire region inside the contact hole being filled with a filler.

16. An electronic apparatus with an electro-optical device, the electro-optical device comprising, above a substrate:

a data line extending in a first direction;

a scanning line extending in a second direction and intersecting the data line;

a pixel electrode and a thin film transistor disposed so as to correspond to intersection regions of the data line and the scanning line;

a storage capacitor electrically connected to the thin film transistor and the pixel electrode;

a shielding layer disposed between the data line and the pixel electrode;

an interlayer insulating film disposed as the base of the pixel electrode; and

a contact hole formed in the interlayer insulating film, to electrically connect the thin film transistor to the pixel electrode,

the entire region inside the contact hole being filled with a filler.